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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,973

11/21/2003

Jacob Lahijani

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E I DU PONT DE NEMOURS AND COMPANY

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WILMINGTON, DE 19805

EXAMINER

VETERE, ROBERT A

ART UNIT

PAPER NUMBER

1709

MAIL DATE

DELIVERY MODE

08/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/719,973

Applicant(s)

LAHIJANI, JACOB

Examiner

Robert Vetere

Art Unit

1709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/04; 4/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 6 and 17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2, 4-5 and 7 of U.S. Patent No. 6,632,902. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 2, 4-5 and 7 of '902 claim a process of rotomolding/rotolining PFA having about 80 unstable end groups per million carbon atoms. This process is substantially identical to the process claimed in claims 6 and 17 of this application..

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 6 recites the limitation "said metal powder" in line 33. There is insufficient antecedent basis for this limitation in the claim. While the examiner believes he understands "said metal powder" to refer to the additive powder, there is no mention of the additive powder being metal in claim 6 and therefore that language "said metal powder" is indefinite. It is not until claim 11 that applicants specify that the powder additive in claim 6 is a metal powder.

6. Claim 7 recites the limitation "said metal powder" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 6-7, 10-12, 14 and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazumi (JP 02-904-593).

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Claims 6 and 19-21: Kazumi teaches a method of rotolining the interior of a hollow article comprising (See, e.g., Applicant's specification, p. 2):

adding a composition comprising tetrafluoroethylene/perfluoro(alkyl vinyl ether) copolymer ("PFA") (§ 0016) and adhesion promoting, non-bubble promoting powder (§§ 0016-0017) (while Kazumi doesn't explicitly state that the powder promotes adhesion, the types of additives they disclose are the same as the additives used by applicant and, therefore, will promote adhesion; see § 0016 and pp. 4-5 of Applicant's specification) to the interior of said article;

rotating said article to distribute the composition over said interior surface (§ 0015);

heating said article to melt the copolymer particles and then cooling said article (§ 0020).

Claim 7: Kazumi also teaches that the amount of powder is less than 2% (§ 0018).

Claim 10: Kazumi also teaches that the thickness of the lining is at least about 1.25 mm (§ 0019).

Claim 11: Kazumi also teaches that the powder is metal powder (§ 0016).

Claims 12 and 14: Kazumi also teaches that the metal powder is zinc and/or contains copper (§ 0016).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 15 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Kazumi.

Claims 15-16: Kazumi teaches all the limitations of claim 11, as discussed above. It also teaches that the metal powder is, for example, zinc or a fine powder containing copper (see § 0016). It does not teach that the additive is a combination of metals. However, "it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically

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from their having been individually taught in the prior art." *In Re Kerkhoven*, 205 USPQ 1069, 1072 (CCPA 1980). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a combination of metals (including brass, which is a combination of copper and zinc) as the additive powder in Kazumi.

11. Claims 1-2, 4-5, 8-9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazumi in light of Saito et al. (US 5,397,831).

Claim 1-2, and 4: Kazumi teaches a method of rotolining the interior of a hollow article comprising (See, e.g., Applicant's specification, p. 2):

adding a composition comprising PFA (¶ 0016) and adhesion promoting, non-bubble promoting powder (¶¶ 0016-0017) (while Kazumi doesn't explicitly state that the powder promotes adhesion, the types of additives they disclose are the same as the additives used by applicant and, therefore, will promote adhesion; see ¶ 0016 and pp. 4-5 of Applicant's specification) to the interior of said article; and forming a rotolined bubble-free overcoat of PFA on said undercoat (¶¶ 0021-22).

What Kazumi does not teach is that the overcoat is thicker than the undercoat. Saito, however, teaches a method of rotolining (Col. 2, lines 64-68) an article with PFA (2:64-68) creating a layer which is free of bubbles (2:64-68). It also teaches that it is common to use rotolining to generate a thick film of 5mm (1:58-68). Given this fact and the fact that the thickness of the undercoat in Kazumi was 2 mm, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have increased the thickness of the overcoat in Kazumi to a value as high as 3 mm with a reasonable expectation of success because layers as thick as 5 mm are common in the art of rotolining with bubble free PFA, as taught by Saito.

Claim 5: Kazumi teaches all the limitations of claim 1 in light of Saito, as discussed above. It also teaches that the powder is metal powder (¶ 0016).

Claims 8-9: Kazumi teaches all the limitations of claim 6, as discussed above. With respect to claims 8 and 9, see discussion of claims 1-2, and 4, above.

Claim 13: Kazumi teaches all the limitations of claim 6, as discussed above. What it does not teach is that the metal powder is tin. Saito, however, teaches that the use of tin as a metal additive is well

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known in the art of rotolining bubble-free PFA (2:43-56). Furthermore, the selection of a known material based on its suitability for its intended use is *prima facie* obvious. *Sinclair & Carroll Co. v. Interchemical Corp.*, 65 USPQ 297 (1945). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a metal powder containing tin in the process of Kazumi because it is recognized as a metal powder which will prevent bubbling of PFA during a rotolining process, as taught by Saito.

12. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kazumi in light of Saito with reference to Buckmaster (US 5,093,409).

Claim 3: Kazumi teaches all the limitations of claim 1 in light of Saito, as discussed above. What it does not explicitly teach is that the PFA is stabilized. However, it has long been known in the art that the removal of unstable end groups is an important part of the technology of perfluorinated melt-processible copolymers (See Buckmaster 1:21-57). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used stabilized PFE copolymer in the method of Kazumi with the expectation of success because it was well known at the time of the invention to stabilize melt-processible copolymers.

13. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazumi in light of Buckmaster.

Claims 17-18: Kazumi teaches all the limitations of claim 6, as discussed above. What it does not teach is that the stabilized copolymer has less than 80 unstable end groups per million carbon atoms in said copolymer. Buckmaster, however, teaches a melt-processible copolymer, such as tetrafluoroethylene copolymers, where the copolymer contains less than 80 unstable end groups per 10^6 carbon atoms (Table 7). These unstable end groups can be, for example, --COOH and --COF (1:29-44). Furthermore, as discussed above in paragraph 13, it is well known in the art to stabilize perfluorinated melt-processible copolymers, such as tetrafluoroethylene copolymers. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have stabilized the PFA in Kazumi, as taught by Buckmaster, because stabilization has long been held to be an important part of the technology of melt-processible copolymers of tetrafluoroethylene.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Vetere whose telephone number is (571) 270-1864. The examiner can normally be reached on M-Th, 7:30-5:00 ET..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571) 272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert Vetere



JENNA BEFUMO
PRIMARY EXAMINER